

GLOSSARY (DEFINITION OF TERMS)

Acre-foot: The amount of water required to cover an acre of land to the depth of one foot, approximately equal to 326,000 gallons.

Alluvium: Material, including clay, silt, sand and gravel, or similar unconsolidated sediment, deposited by a stream or other body of running water.

Arroyo: Vertical-walled, flat-floored channel of ephemeral stream of the semiarid Southwest.

Bajada: A continuous alluvial formation along a mountain front.

Basaltic Andesite: a dark to medium colored extrusive or intrusive rock.

Basin and Range Physiographic Province: a province in the southwestern United States characterized by a series of tilted fault blocks forming longitudinal ridges or mountains and broad intervening basins.

Bolson: A flat-floored desert valley that drains toward a playa or central depression.

Calcareous: Having sufficient accumulation of calcium carbonate to effervesce visibly when treated with cold dilute hydrochloric acid.

Caliche: A layer in the soil more or less cemented by calcium carbonate commonly found in arid and semiarid regions.

Cenozoic: An era of geologic time from the beginning of the Tertiary period approximately 65 million years ago to the present.

Conglomerate: Clastic sedimentary rock composed of rounded fragments varying from small pebbles to large boulders in a cement of calcareous material.

Cretaceous: The final period of the Mesozoic Era, though to have covered the span of time between 135 and 65 million years ago during which dinosaurs reached their maximum development.

Day-night average sound level (DNL) The average noise level computed on an energy basis with a 10 dBA penalty added to sounds between 10 p.m. and 7 a.m. to adjust for greater intrusiveness of noise during normal sleeping hours.

Dwell time—the period of time during which a launch vehicle or its debris could fall on a given location. The dwell times for locations farther along the flight path are shorter than for earlier locations because of the increasing speed of the vehicle.

Ecotonal: Transitional between two adjacent biological communities.

El Camino Real de Tierra Adentro: The Royal Road of the Interior Lands (El Camino Real) is the road that was used during the 1600s and 1700s between Santa Fe, New Mexico, and Ciudad Chihuahua,

Glossary (Continued)

Chihuahua, Mexico. A 404-mile section, from El Paso, Texas, to San Juan Pueblo, New Mexico, is being designated as a National Trail.

Everted: Turned outward or inside out.

Extirpation: To make extinct in a given area.

Fault: A fracture or a zone of fractures along which there has been displacement of the sides relative to one another parallel to the fracture.

Formation: The primary unit of formal geologic mapping or description. Most formations possess certain distinctive or combination of distinctive lithic features.

GAP Analysis Project: A project to map the extent of various vegetative communities.

Geothermal Energy: Useful energy that can be extracted from naturally occurring steam, hot water, or hot rock in the earth's crust.

Graben: A sunken area between two faults.

HIWAY2: An atmospheric dispersion model developed by the EPA designed to predict the concentrations of atmospheric pollutants resulting from vehicular traffic on roads.

Hydrocarbons: Compounds of hydrogen and carbon often used in air pollution discussions to refer to compounds other than methane. Regulated as an air pollutant because photochemical reactions involving these chemicals give rise to ozone.

Hypergolic fuel: A fuel and an oxidizer that ignite spontaneously on contact. Most hypergolic fuels are toxic chemicals.

Igneous: Produced as a result of volcanic action or intense heat in the earth

Instantaneous impact prediction (IIP): the area within which the vehicle would have a high probability of impacting in the event of failure, or the area that would have a high probability of containing all of the debris in the event of vehicle break-up. The IIP is affected by vehicle speed and altitude, but the nature of the break-up event, and by atmospheric conditions, particularly the wind profile.

Ku band: The band of radio frequencies from 12–18 gigahertz (12–18 billion cycles per second).

Loam: A permeable soil composed of a friable mixture of relatively equal and moderate proportions of clay, silt and sand particles, and usually containing some organic matter. Sometimes called topsoil in contrast to subsoils that contain little or no organic matter.

Locatable Minerals: Traditional hard rock minerals such as gold, lead, and silver ores, and industrial minerals such as fluorite and barite.

Glossary (Continued)

- 1 Mach no.: The speed of a vehicle expressed as a multiple of the speed of sound.
- 2 Mercalli Scale: An scale of earthquake intensity based on observed effects, ranging from I (detectable
3 only by seismic detection instruments) to XII (causing almost total destruction).
- 4 Mesozoic: The geologic era from 230 million to 65 million years ago.
- 5 Metamorphic Rocks: Any rock derived from preexisting rocks and transformed by chemical,
6 mineralogical or structural changes in response to marked changes in temperature, pressure,
7 chemical environment, or other stress.
- 8 Methane: The hydrocarbon CH₄.
- 9 Mineralization: The process of converting or being converted into a mineral.
- 10 Neotropical birds: Migratory birds that travel between North, Central, or South America.
- 11 Oligocene: An epoch of the early Tertiary period.
- 12 Ozone: The highly reactive form of oxygen O₃. Considered an air pollutant in the lower atmosphere
13 because it is a powerful irritant. In the upper atmosphere, naturally occurring ozone absorbs harmful
14 ultraviolet radiation.
- 15 Paleozoic: An era of geologic time, from the end of the Precambrian to the Mesozoic, or from about
16 570 to 225 million years ago in which life began to flourish.
- 17 Passerines: Small and medium-sized perching song birds.
- 18 Permeability: The property or capacity of a porous rock, sediment, or soil for transmitting a fluid.
- 19 Piedmont: An area, plane, slope, or other feature lying at the base of a mountain, such as a foothill or
20 a bolson.
- 21 Playa: A desert basin that temporarily becomes a lake after heavy rain.
- 22 Pleistocene: The geologic epoch from 600,000 to 12,000 years ago. The great ice ages occurred during
23 the Pleistocene.
- 24 Pliocene: The geologic epoch from 10 million to 600,000 years ago.
- 25 Porosities: Microscopic openings in rocks or minerals capable of holding water.
- 26 Precambrian: Relating to the earliest geologic era that includes all geologic time, and its corresponding
27 rocks, before the beginning of the Paleozoic. The earliest life-forms appeared at the end of the
28 Precambrian era.

Glossary (Continued)

- 1 Quaternary: the second period of the Cenozoic era, following the Tertiary; it is thought to have begun
2 600,000 years ago and continues to the present.
- 3 Raptors: Birds of prey.
- 4 Respirable particulate matter: Particle sizes small enough to be drawn deeply into the lungs. Generally
5 considered to be 10 micrometers or smaller in diameter.
- 6 Rhyolite: A fine-grained volcanic rock.
- 7 Richter Scale: A numerical scale of earthquake magnitude based on the energy released. An increase of
8 one unit represents a 10-fold increase of energy released.
- 9 Rift: a system of fractures (faults) in the earth's crust and the associated valley or depression.
- 10 S band: The band of radio frequencies extending from 1.55–5.2 gigahertz (1.55–5.2 billion cycles per
11 second).
- 12 Salable Minerals: Common variety mineral materials such as sand, gravel, cinders, and building stone
13 that are sold on a permit basis.
- 14 SCREEN: An atmospheric dispersion model developed by the EPA design to predict worst-case
15 concentrations of atmospheric pollutants downwind from stationary sources.
- 16 Sedimentary Rocks: Rocks formed by the consolidation of loose sediment. Sedimentary is one of three
17 classes of rocks, the other two being igneous and metamorphic.
- 18 Seismic Station: A station that collects a record of all seismic activities during a period of time, including
19 background noise, from both natural and artificial events.
- 20 Soil Series: A group of soils with layers that, except for texture of the surface layer, have similar
21 characteristics and arrangements in the profile.
- 22 Split Estate: Refers to the situation where the mineral estate is owned or controlled by a party other than
23 the owner of the surface of the same land area.
- 24 Subbituminous Coal: A black coal with a rank intermediate between lignite and bituminous coal.
- 25 Syncline: A fold in which the core has the stratigraphically youngest rocks; synclines are generally
26 concave upward.
- 27 Tertiary: The geologic period from 65 million to 10 million years ago in which mammals began to
28 flourish.

Glossary (Continued)

- 1 Uplift: A structurally high area on the earth's surface, produced by positive or upward movement that
2 raise the rocks.
- 3 Volcanic Cone: A conical hill of lava built up around a volcanic vent.
- 4 Volcanic Rock: An igneous rock resulting from volcanic action at the earth's surface.
- 5 Water Capacity: The maximum amount of water that a rock or soil can hold.

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